**Name: Period: Job 23 Adding and Subtracting Polynomials**

**Part 1: Textbook**

Textbook Lesson 7-1 Page 265-266: 28, 32, 33, 34, 36, 39

**Part 2: Algebra Regents Questions –**

1. If $A=3x^{2}+5x-6$ and $B=-2x^{2}-6x+7$, then $A-B$ equals

 (1) $-5x^{2}-11x+13$ (3) $-5x^{2}-x+1$

 (2) $5x^{2}+11x-13$ (4) $5x^{2}-x+1$

1. Subtract $5x^{2}+2x-11$ from $3x^{2}+8x-7$. Express the result as a trinomial.
2. To watch a varsity soccer game, spectators must buy a ticket at the door. The cost of an adult ticket is $3.50 and the cost of a student ticket is $2.00. If the number of adult tickets sold is represented by *a* and students tickets sold by *s*, which expression represents the amount of money collected at the door from ticket sales?

(1) $5.50as$ (3) $5.50(a+s)$

(2) $(3.50a)(2.00s)$ (4) $3.50a+2.00s$

1. When multiplying polynomials for a math assignment, pat found the product to be $-4x+8x^{2}-2x^{3}+5$ . He then had to state the leading coefficient of this polynomial. Pat wrote down $-4$. Do you agree with Pat’s answer? Explain your reasoning.

1. Camille has a video game card worth $185. After she plays the first game, the card’s value is $182.25. After she plays the second game, its value is $179.50. After she plays the third game, the card is worth $176.75.

Assuming the pattern continues, write an equation to define *A(n)*, the amount of money on the video game card after *n* rentals.

Camille plays a game every Friday night. How many weeks in a row can she afford to play a game using her game card only? Explain how you arrived at your answer.

1. The graph below models the cost of renting video games with a membership in Plan A and Plan B.



Explain why Plan B is the better choice for Artemio if he only has $40 to spend on video games, including a membership fee.

Josh wants to spend $65 on video games, including a membership fee. Which plan should he choose? Explain your answer.